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Polydesmus polonicus Latzel, 1884, new to the fauna of Hungary (Diplopoda: Polydesmida)

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ABSTRACT. A new species to the millipede fauna of Hungary: Polydesmus polonicus Latzel, 1884, is recorded and described. Previous occurrences of the species are summarized, and its geographical distribution is outlined.

KEY WORDS: Diplopoda, Polydesmida, Polydesmus polonicus Latzel, 1884, distribution, Hungary.

When examining the Myriapoda collection in the Zoological Department of the Hungarian Natural History Museum, two males have been recognized of a hitherto unknown species for Hungary. This species is Polydesmus polonicus Latzel, 1884, and the specimens were collected at Nagymaros, about 30 km North of Budapest, Hungary, on 28th of June, 1961, by Dr H. FARKAS.

The species was described by LATZEL (1884) on the basis of a single male specimen from Przemyśl, in the eastern Beskyds (Northeastern Carpathian Mts.), now in the southeastern corner of Poland. The next reference to P. polonicus was by VERHOEFF (1898), 14 years later, who mentioned it from Valea Vinului (now in Romania, cca. 20 km ESE of Satu Mare). VERHOEFF (1931) erected Aneumeritius, a new subgenus for several Polydesmus species, including P. polonicus. ATTEMS (1940) rejected VERHOEFF's Aneumeritius, withdrawing taxonomical importance from the endomerite; however, he established the subgenus Spanobrachium for Polydesmus species without "Rinnenast" (having the "Haarpolster" on the main branch of femur), with or without endomerite, and without basal spine on tibiotarsus. Spanobrachium is accepted by most of the subsequent authors (LOKSA 1954; TABACARU and NEGREA 1961). In the time of ATTEMS (1940), P. polonicus was known only from the two localities mentioned already above: Przemyśl and Valea Vinului. LOKSA (1954) enumerated 12 new localities from Romania, the same being referred to by TABACARU and NEGREA (1961). From Czechoslovakia, the first findings were reported by LOŽEK and GULIČKA (1955, cited after LOŽEK and GULIČKA 1962): Nová Sedlica and Stužica in the eastern part of Mt. Vihorlát. From Poland, STOJAŁOWSKA (1961) recorded only the locus typicus (Przemyśl) but later on, STOJAŁOWSKA and STAREGA (1974) referred to the collections of C. DZIADOSZ in the Bieszczady region. JĘDRYCZKOWSKI (1979) listed a number of Polish records, again in the southeastern corner of the country. In the Soviet Union, KURTCHEVA (1972) attached P. polonicus to the Carpathian Mts. as an endemic species; in the catalogue of LOKSHINA and GOLOVATCH (1979) it is only mentioned again from this region. All the records, hitherto known for the distribution of P. polonicus, are summarized in Fig. 1.

Description of Polydesmus polonicus of Hungary

Material examined: 2 ♂♂, Hungary, County Pest, Nagymaros, June 28, 1961, leg. H. FARKAS. Deposited in the Zool. Dept. of the HNHM.

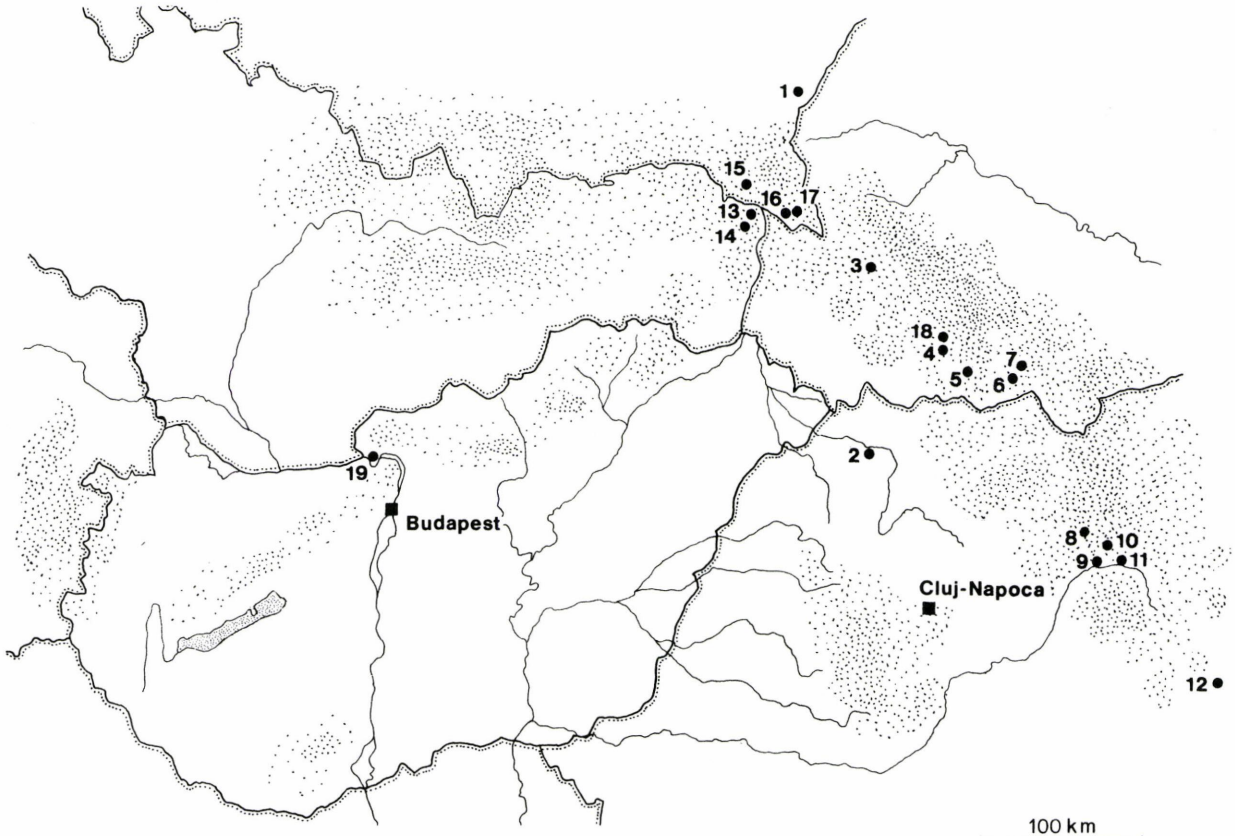


Fig. 1. Distribution of Polydesmus polonicus Latzel, 1884

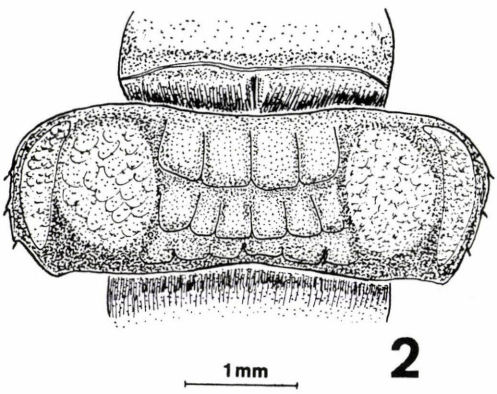
Localities: 1= Przemyśl (Latzel 1884); 2= Valea Vinului (= Radnaborberek) (Verhoeff 1898); 3= Volovets (= Voló́c); 3= Komsomolsk (= Németmokra); 5= Kobiletska Polyana (= Gyertyánliget); 6= Lugi (= Luhi); 7= Mt. Hoverla; 8= Colibiţa (= Kolibica); 9= Răstoliţa (= Ratosnya); 10= Ilva valley, Kelemen Mts; 11= Stînceni (= Gödemesterháza); 12= Plăesi (= Kászon) (Loksa 1954); 13= Nová Sedlica; 14= Stužica (Ložek and Gulička 1962); 15= Cisna; 16= Ustrzky Górne; 17= Tarnica (Jędryczkowski 1979); 18= Ust'-Chorna (= Uszty-Csorna) (Kurtcheva 1972); 19= Nagymaros

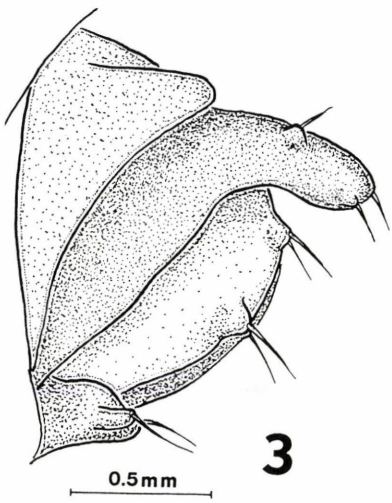
Body length: 29-31.5 mm.

Width of midbody segment, without and with paranota, respectively: 1.9-2.1/3.7-4.0 mm.

20 segments, body gradually broadening in dorsal view to ring 8, onwards parallel-sided, from ring 14 quickly tapering toward telson. Color in alcohol uniformly pale yellowish-brown, paranota of segments 2, 3, 4, 6, 8, 11 and 14 lighter, pale yellow or whitish.

Antennae long and slender, in situ reaching to end of ring 3. Collum small, rounded, with 4+4 knobs. Posterior half of metaterga hairless, with 4+4 knobs, from segment 5 with 4+6 (rarely 4+7, 4+8) knobs, expanding and jointing like mosaic-plates (Fig. 2). At the basis of each paranotum on both sides in dorsal view a large, flat, tuberculated swelling. This metatergal pattern goes on till segment 17. Shape of paranota rounded, anterior half broader, on ring 8 and onwards almost perfectly symmetrical, normally rounded, from ring 11 with increasing caudal beak. Edge of each paranotum with very small teeth having singled hairs (Fig. 2). Paranota in lateral view situated high, oblique, anterior part always much lower than caudal one. Pore-bearing segments: 5, 7, 9, 10, 12, 13, 15, 16, 17 and 18. Every prozonite with a strong, bisinuate, transverse furrow.





Figs 2-3. Polydesmus polonicus Latzel, 1884. 2 = tenth segment, dorsal view, 3 = end of body, lateral view

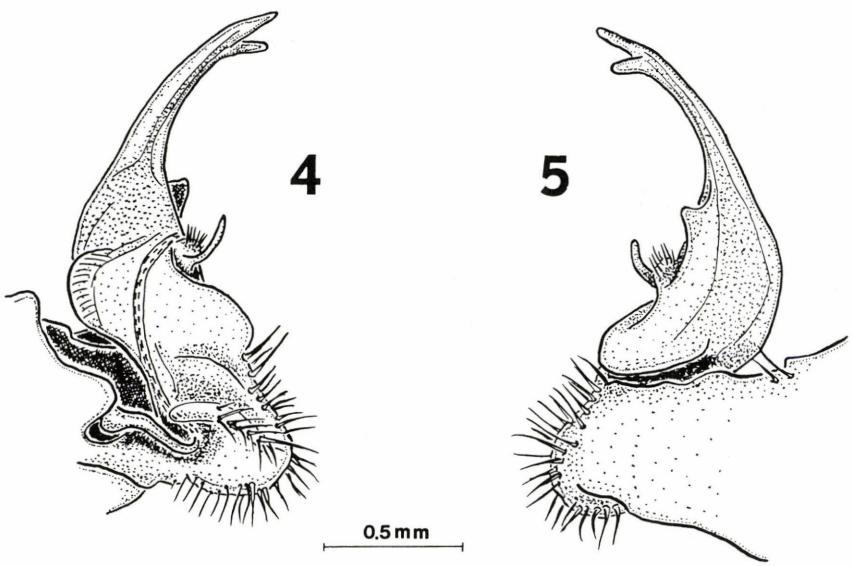
Legs and claws strong, without tarsal brushes or any modification. Epiproct not too long, almost straight, finger-shaped, with a number of hairy knobs. Subanal plate subtriangular, rounded in ventral view, with two large, setiferous protuberances. Anal plates provided with 2+2 knobs, each with a single hair (Fig. 3).

Gonopods well correspond to the earlier descriptions (LATZEL 1884; ATTEMS 1940) (Figs 4-5). Coxa densely setose, femur short and stout. Tibiotarsus well-demarcated from femur, especially on lateral side, by a low and strong ridge. At the opening of seminal groove, there is a pulvillus (= "Haarpolster") carrying at its base a small, slender slightly curved hook (= "Endomerit" a). Tibiotarsus not very long, suberect, arched, distally taper-

ing, bifurcate; the proximal branch can be considered as subapical tooth (b). On lateral side of tibiotarsus, a bit proximad of midlength, there is a widely triangular tooth (c). This tooth is absent on the specimens from Valea Vinului, according to VERHOEFF (1898), and its presence was mentioned as being not obligatory by ATTEMS (1940) as well. However, every subsequent illustration (LOKSA 1954; LOŽEK and GULIČKA 1962) and also the present specimens definitely display this character.

DISCUSSION

Evaluating the Hungarian localities of Polydesmus polonicus, we have to look again at the distribution map (Fig. 1). According to the majority of the authors (KURTCHEVA 1972; JĘDRYCZKOWSKI 1979; GULIČKA 1985), the species is endemic in the high mountain areas of the Northeastern Carpathians. It is strange, but in their catalogue STOJAŁOWSKA and STAREGA (1979) listed Hungary as well among the countries where the species is distribut-



Figs 4-5. Polydesmus polonicus Latzel, 1884, left gonopod. 4= mesal view; 5= lateral view

ed, based on untraceable consideration. Taking into account the relatively coherent occurrences at the borders of four countries (Poland, Soviet Union, Romania and Czechoslovakia), the present newest locality in Hungary is surprising and may have zoogeographical importance. However, more recent data from Transcarpathian Ukraine, showing a wide distribution not only in mountains but also in foothills of piedmont belt (e. g. Mukačevo, GOLOVATCH pers. comm.), may suggest a new interpretation of P. polonicus. Similarly, GULIČKA (1985) referred to a number of unpublished East Slovakian records, too. Perhaps an exact knowledge of all these localities may help to correct and understand the real distribution of the species.

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